Discrete Mathematics
Volume 302, Issues 1–3, 28 October 2005

Special Issue: Structural Combinatorics: Combinatorial and Computational Aspects of Optimization, Topology and Algebra

Guest Editors: S. Eliahou, I. Gitler, J. Nešetřil

Contents

Foreword 1

Guest Editor listing 5

A. Alcántar
Rees algebras of square-free Veronese ideals and their *a*-invariants 7

D. Archdeacon
Variations on a theme of Kuratowski 22

A. Bouchet
Graph polynomials derived from Tutte–Martin polynomials 32

M.K. Chari and M. Joswig
Complexes of discrete Morse functions 39

A. de Mier and M. Noy
On matroids determined by their Tutte polynomials 52

J.A. de la Peña, L. Mendoza and J. Rada
Comparing momenta and π-electron energy of benzenoid molecules 77

S. Eliahou and M. Kervaire
A survey on modular Hadamard matrices 85

I. Gitler and C.E. Valencia
Multiplicities of edge subrings 107

G. Károlyi
A compactness argument in the additive theory and the polynomial method 124

L.H. Kauffman
Reformulating the map color theorem 145

doi:10.1016/S0012-365X(05)00499-1

W. Mader
High connectivity keeping sets in graphs and digraphs 173

C. Merino
The chip-firing game 188

J. Nešetřil and P. Ossona de Mendez
Cuts and bounds 211

J.L. Ramírez Alfonsín
Knots and links in spatial graphs: A survey 225

G. Salazar
On the crossing numbers of loop networks and generalized Petersen graphs 243

I. Sarmiento
Transition polynomials 254

R.H. Villarreal
Normality of semigroups with some links to graph theory 267

G. Whittle
Recent work in matroid representation theory 285

Author index to volume 302 297

Guide for authors 299

CONTENTS direct

This journal is part of **ContentsDirect**, the ***free*** alerting service which sends tables of contents by e-mail for Elsevier books and journals. You can register for **ContentsDirect** online at: **http://contentsdirect.elsevier.com**